

## CLAIMS

What is claimed is:

- 5 1. A method for reducing the formation of biofilm deposits on a wall in a water system comprising the steps of:
- providing a capacitive electrostatic generator adapted to create an electrostatic field;
- immersing said electrostatic generator in a body of water in  
10 the water system, the water system being connected to an electrical ground relative to an electromotive force available for energizing the electrostatic generator; and
- energizing said electrostatic generator with said electromotive force, such that a corresponding electrostatic  
15 field is created between said generator immersed in the water system and said electrical ground without measurable current leakage in the body of water;
- wherein said capacitive electrostatic generator comprises a vitrified ceramic tube of unibody construction having an  
20 integrally-sealed end defining an inner cavity with an inner wall; conductive material contained within said inner cavity and disposed in intimate contact with said inner wall; electrically-insulated sealing means for providing hermetic closure to said inner cavity; and electrical means for energizing said conductive  
25 material with a static electromotive force.

2. The method of Claim 1, wherein said voltage is greater than about 10,000 volts DC.

5 3. The method of Claim 1, wherein said voltage is greater than about 30,000 volts DC.